

Supplementary Material

Co–HOAT Complexes Change Their Antibacterial and Physicochemical Properties with Morphological Evolution

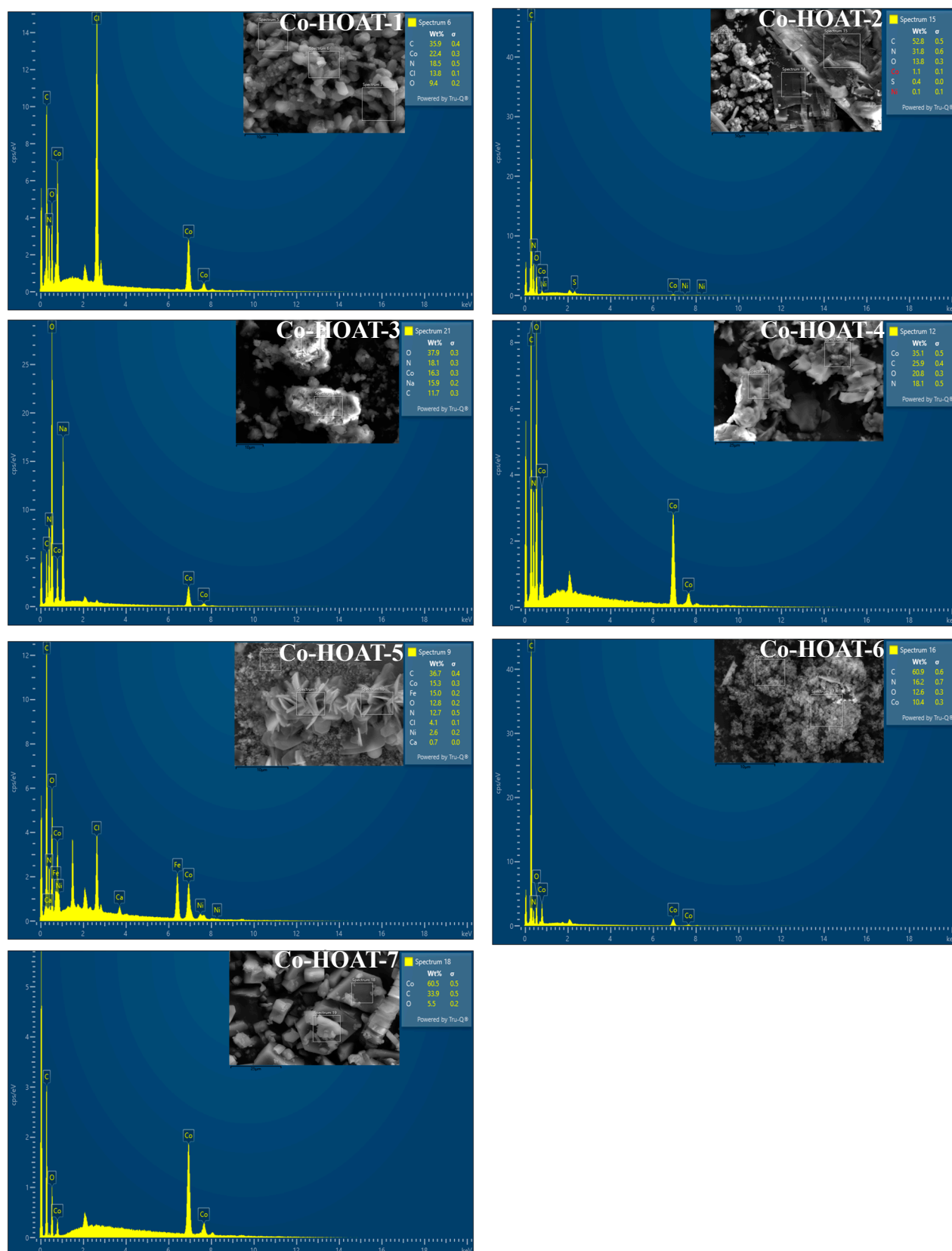
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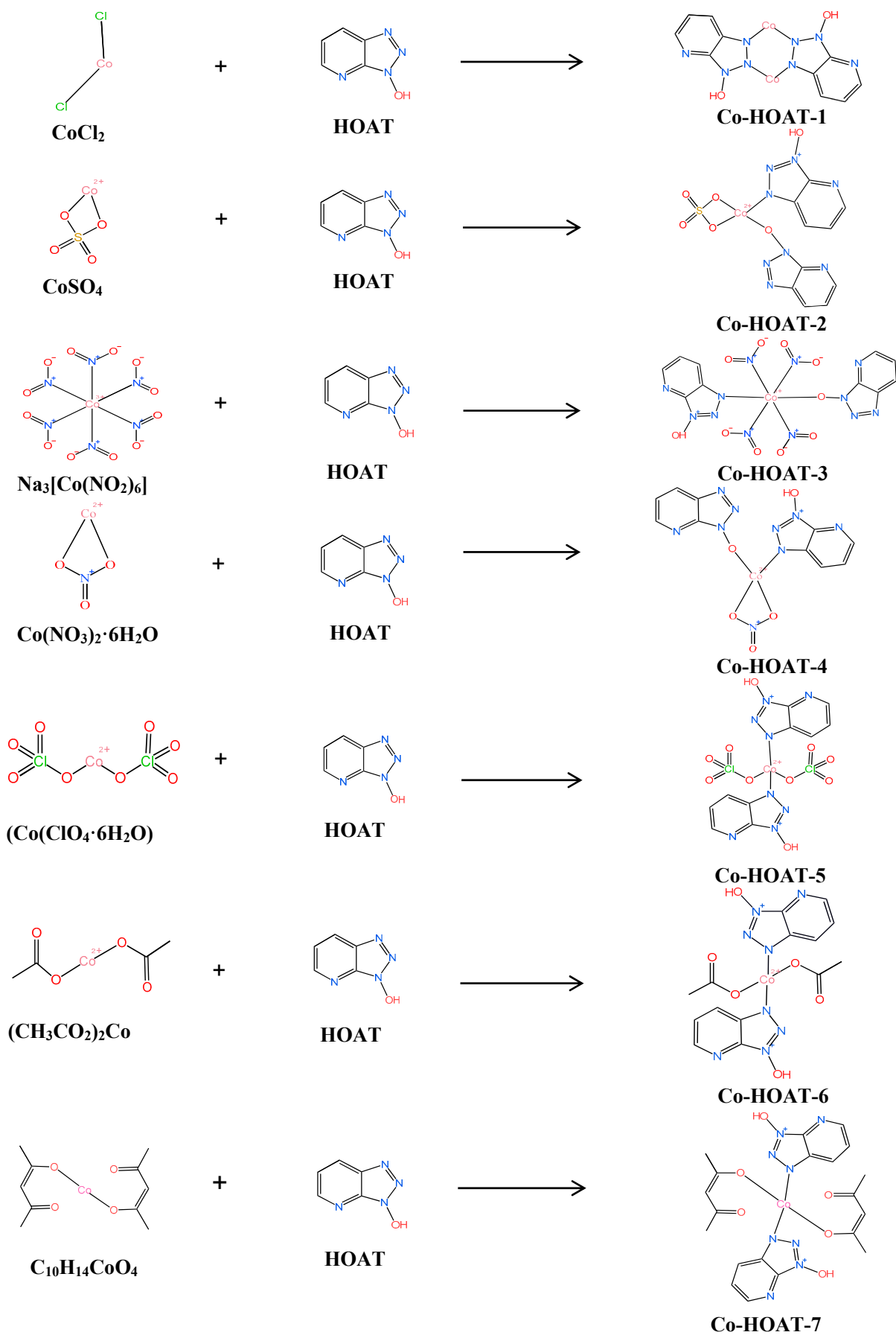
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Supplementary Figure S1. The EDS mapping spectrum of Co-HOAT-1, Co-HOAT-2, Co-HOAT-3, Co-HOAT-4, Co-HOAT-5, Co-HOAT-6 and Co-HOAT-7, respectively.

Supplementary Table S1. The existed potential chemical bonds in seven Co-HOATs derived from FTIR spectra.

Chemical Bonds	-N-OH (cm ⁻¹)	-N-O (cm ⁻¹)	-R ₁ R ₂ -N- (cm ⁻¹)	-N=N ⁺ -O- (cm ⁻¹)	-N=N- (cm ⁻¹)	Pyridine ring (cm ⁻¹)
Co-HOAT-1	1274.9	954.0	1600.4			1594-1444
Co-HOAT-2		941.0		2355.0		1594-1444
Co-HOAT-3		950.0		2356.0		1594-1444
Co-HOAT-4		950.0		2343.4		1594-1444
Co-HOAT-5	1276.0	927.0		2280.0		1594-1444
Co-HOAT-6	1271.0	949.5		2221.0		1594-1444
Co-HOAT-7	1275.8	936.0		2300.0		1594-1444



Supplementary Scheme S1. The potential structure of seven Co-HOATs derived from FTIR and Raman spectra.

Supplementary Table S2. The cobalt ratio in catalysts of Co-HOAT-1, Co-HOAT-2, Co-HOAT-3, Co-HOAT-4, Co-HOAT-5, Co-HOAT-6 and Co-HOAT-7, respectively.

Catalysts	Abs	Concentration (mg/l)	Co ratio (mg/g)
Co-HOAT-1	0.754	8.92	0.88
Co-HOAT-2	0.783	9.79	0.98
Co-HOAT-3	0.736	8.41	0.84
Co-HOAT-4	0.739	8.49	0.85
Co-HOAT-5	0.751	8.84	0.88
Co-HOAT-6	0.739	8.49	0.85
Co-HOAT-7	0.728	8.18	0.82